# **MATERIAL SAFETY DATA SHEET**



# 1-METHOXY-2-PROPANOL

# 1. Chemical product and company identification

Product name : 1-Methoxy-2-Propanol

Synonyms : alpha- Propylene glycol monomethyl ether; alpha- PGME

**Item Number** : E48010100

# Manufacturer / Supplier / Distributor Information

RAR Resin & Chemical Industries JLT

11th Floor, Jumeirah Lake Towers, P.O. Box: 47381, Dubai UAE

# 2. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	% Weight	CAS no	Hazard Class *	Risk phrase*
1-Methoxy-2-propanol 2- Methoxypropanol	98.5	107-98-2	3	R10
	< 0.5	1589-47-5	Not applicable	Not applicable

<sup>\*</sup> Hazard class & Risk phrase. These columns are only completed for ingredients which are classified as hazardous and are present in sufficient concentration to make the overall substance hazardous. In all other situations, the column will be completed as "Not applicable"

# 3. HAZARDS IDENTIFICATION

### **EMERGENCY OVERVIEW**

Colourless highly flammable liquid with sweet odour. Dangerous fire and explosion hazard. Avoid heat, sparks, and flame. Flash back may occur from vapours to a source of ignition. may cause eye skin, skin, respiratory tract and digestive tract irritation for short and long term exposure effects see Section 11. Toxicological data.

**Eye Effects** : May cause eye irritation.

**Skin effects** : May cause skin irritation. May be harmful if absorbed through the skin.

Ingestion/Oral effects : May cause irritation of the digestive tract. May be harmful if swallowed.

Inhalation effects : May cause respiratory tract irritation. may be harmful inhaled.

### DISCL AIMER

# MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

NFPA hazard cod	es	HMIS hazard codes		Rating system	
Health	1	Health	1	0 = No Hazard	
Flammability	3	Flammability	3	1= Slight Hazard	
Instability	0	Reactivity	0	2= moderate Hazard 3= Serious hazar 4= Severe Hazard	

### 4. FIRST AID MEASURES

while removing contaminated clothing and shoes. If exposure is extensive or irritation persists, seek medical attention.

ingestion/ Oral : Wash mouth out with water. Seek medical attention immediately. never give anything by mouth to an unconscious person.

Inhalation : Remove the victim to fresh air immediately. If not breathing, give

artificial respiration. if breathing is difficult, give oxygen. Seek

medical attention.

Other infomation : None

# 5. FIRE-FIGHTING MEASURES

Extinguishing Media : Water may be ineffective. Do not use straight streams. of water. For large fires, use dry chemical, carbon dioxide, alcohol-resistant foam, or water spray. For small fires, use carbon dioxide, dry chemical dry sand, or alcohol-resistant foam. Cool containers with flooding quantities of water until well after fire is out.

nooding quantities of water until well after life is out.

Explosion Hazard : Liquid and vapours are flammable. Vapours may form an explosive mixture with air. Vapours are heavier than air and may travel to a source of ignition and flash back. Vapours can spread along the

ground and collect in low or confined areas.

### DISCLAIMER

Special protective Equipment for fire fighters

: use MSHA/ NIOSH (approved or equivalent) self- contained breathing apparatus in pressure- demand mode, and full protective gear. During a fire, irritating, corrosive and toxic gases may be generated by thermal decomposition or combustion of the product. Wear the appropriate protective clothing to prevent contact with skin and eyes.

For Flammability properties : See section 9

# **6. ACCIDENTAL RELEASE MEASURES**

Do not walk through or otherwise scatter or spread any spilled product. Put on the appropriate protective equipment ( See Section 8) and clean up spills immediately. (Use spark-proof tools). Isolate the area of the spill and dike well ahead of the large spills for later recycling or disposal.

Ventilate enclosed areas. Use a suppressing foam to reduce vapours. (Water spray may reduce vapour but may not prevent ignition in closed spaces.)

Use inert material (for example, vermiculite dry sand or earth) to absorb the spilled product, and then place it into a chemical waste container. Do not use combustiblematerials such as sawdust to absorb the product. Safely dispose of the recovered spilled product (See Section 13)

Avoid run-off into storm sewers, drains and ditches that lead to waterways.

# 7. HANDLING AND STORAGE

# Handling

: Wear appropriate protective equipment. Use only in a well- ventilated area. Do not Inhale fumes or vapours from the product. Use spark-proof tools and explosion proof equipment, Keep away from incompatible materials (See section 10)

Empty containers retain product residue (liquid and/ or vapour) and can be dangerous. Take precautionary measures against static discharges. Do not pressurize, cut, weld, braze, solder, drill or expose empty containers to heat, sparks or open flames.

Do not get the product in eyes, on skin or on clothing. DO not ingest the product. Do not seat, drink, or smoke in areas where this product is used. Wash thoroughly after handling. Immediately remove contaminated clothing and wash before use.

# Storage

Store in tightly closed containers, in a dedicated flammables area. Store in a cool, dry, well-ventilated area away from incompatible materials. (See section 10). Keep away from heat, sparks, flames and sources of ignition. Do not store in direct sunlight.

# 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

# **Exposure Limits:**

INGREDIENTS ACGIH - TLV OSHA - PEL

1-Methoxy-2-propanol 100 ppm None Established

150 ppm- STEL

### DISCLAIMER

### **Personal Protection:**

**Engineering Measures:** : Use explosion proof ventilation equipment. Provide eyewash facilities and safety

showers. Ensure adequate ventilation in areas where the product is used, to keep

airborne concentrations low.

**Respiratory Protection** : Wear suitable respiratory protection whenever workplace conditions warrant a

respirator's use.

Handskin/ skin Protection : Wear appropriate protective and chemical- resistant gloves, clothing and splash

protection, or fully encapsulating vapour protective clothing safety goggles with full

face shield.

**Eye/Face Protection** : Wear appropriate chemical safety goggles withfull face shield.

**Hygiene measures** : Do not eat , drink, or smoke while using the product. Wash hands after using the

product and before eating, drinking or smoking. Immediately change contaminated

clothing.

Other/General Protection : Overalls should be launched regularly.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odour	Colourless liquid, sweetish/ ethereal odour	Boiling point	118-119/ 244- 246	°C/°F
pH (as supplied) Solubility in Water Volatile Content by Volume Specific Gravity	4 to 7 9200 g/l @ 20 °C0 Soluble ≥ 98.5 % 0.92	Freezing point Auto Ignition Flash point	-97/ -143 286/ 547 33/ 91	°C/ °F °C/ °F °C/ °F
Vapour Pressure (mbar)	14.5 @ 25 °C	Vapour Pressure (Torr)	10.9 @ 7	77 °F

### 10. STABILITY AND REACTIVITY

**Stability** : Stable under normal handling and storage conditions.

Material/ Conditions to avoid : Avoid ignition sources and excess heat. Keep away from strong oxidizing

agents, acid chlorides and acid anhydrides

**Hazardous decomposition**: Carbon monixide and carbin dioxide are evolved during combustion

**Hazardous Polymerisation**: Will not occur.

### 11. TOXICOLOGICAL INFORMATION

For a comprehensive description for the various toxicological (health) effects which may arise if the user comes into contact with the substance or preparation refer to Section 3 Hazards Indentification

# **Animal data:**

LD50 value : Oral, mouse: 11700 mg/kg. Oral, rabbit: 5700 mg/kg. Oral, rat:

6600 mg/kg. Dermal, rabbit: 13 g/kg

LC50 value : Inhalation, rat: LC50 = 10000 ppm/ 5h

**Carcinogenicity** : No known carcinogenic effects.

### DISCLAIMER

### 12. ECOLOGICAL INFORMATION

Persisitence : The half-life has been predicted to be 24.5 H. The experimentally

determined half-life was 3,1 H under smog conditions. Due to water solubility, rain would be expected to remove the product

from the atmospehere.

Biodegradability : Limited data from screening tests indicate the product would

probably biodegrade in water and soil.

Mobility : Limited data is available, the product would not be expected to

volatize from water.

**Bioaccumulation**: The product is not expected to bioconcentrate in aquatic organisms

as indicated by an estimated BCF of 0.25.

Ecotoxicity :LC50 (aquatic) : 19202 mg/l (96 H)

Other Information : Aquatic ecotoxicity: Fathead Minnow: LC50= 15886 mg/l 96 H

Bluegill/Sunfish: LC50= 21742 mg/l (96 H) Water flea: EC50= 10457 mg/l (96 H)

# 13. DISPOSAL CONSIDERATIONS

If recycling not practicable, dispose of the product and used containers in accordance with all local and national requirements. Empty containers must be decontaminated before recycling.

# 14. OTHER INFORMATION

Althought the information and recommendations in this data sheet are to the best of our knowledge is correct, it is recommended that you make your own determination of the materialssuitability for your purpose before you use it. The information contained in this data sheet has been reproduced from the manufacturer;s data; the accuracy of this information is the responsibility of the manufacture. RAR Resin & Chemical Industries accept no responsibility for damage of any damage of any nature reluting from the use of, or the reliance upon this data sheet.

# 15. GLOSSARY

CAS Chemical Abstractive Service EC Effective Concentration

**HMIS** Hazardous material Information Service

**LC** Lethal Concentration

**LD** Lethal Dose

MSHA Mine Safety and Health Administration NFPA National Fire Protection Association

NIOSH
National Institute for Occupational Safety and Health
OSHA
Occupational Safety and Health Administration

PEL Permissible Exposure Limit TLV Threshold Limit Value.